

Via Recess In Underlying Conductive line

ABSTRACT

A semiconductor device includes a dielectric layer, a conductive line, a via, and a via recess in the conductive line. The conductive line is underlying the dielectric layer. The via is formed in the dielectric layer and extends into the conductive line to form the via recess in the conductive line. The via recess formed in the conductive line has a depth of at least about 100 angstroms. Via-fill material fills the via recess and at least partially fills the via, such that the via-fill material is electrically connected to the conductive line. The via recess may have a same size or smaller cross-section area than that of the via, for example. Such via structure may be part of a dual damascene structure in an intermetal dielectric structure, for example.

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